

control signals, a reference potential, the first voltage, or the second voltage to the gate signal line;

a data driver connected to the data signal line, said data driver for selectively applying a data signal having a data signal voltage to the data signal line; and

a gate controller for selectively applying gate control signals to the gate driver;

wherein the gate controller applies gate control signals that cause the gate driver to apply the first voltage to the gate signal line during the application of the data signal on the data signal line;

wherein the gate controller applies gate control signals that cause the gate driver to apply the second voltage to the gate signal line after the application of the first signal voltage, but during the application of the data signal on the data signal line;

wherein the gate controller applies gate control signals that cause the gate driver to apply the reference potential to the gate signal line after the application of the second signal voltage but during the application of the data signal on the data signal line;

wherein the first voltage is greater than the data signal voltage and turns on the switching transistor;

wherein the second voltage is near the data signal voltage; and

wherein the reference voltage turns off the switching transistor.

28. (New) The active matrix liquid crystal display apparatus as claimed in claim 27, wherein the gate signal line has a potential that drops from the first voltage to the second voltage over a period of time.

29. (New) The active matrix liquid crystal display apparatus as claimed in claim 28, wherein the gate signal line potential drops exponentially over the period of time.

30. (New) The active matrix liquid crystal display apparatus as claimed in claim 28, wherein the gate signal line potential drops linearly over the period of time.

31. (New) The active matrix liquid crystal display apparatus as claimed in claim 28, wherein the gate signal line potential drops stepwise over the period of time.

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32. (New) The active matrix liquid crystal display apparatus as claimed in claim 27, wherein the first voltage is greater than the second voltage.

33. (New) The active matrix liquid crystal display apparatus as claimed in claim 27, wherein the gate controller includes a timing controller.

34. (New) The active matrix liquid crystal display apparatus as claimed in claim 27, wherein the gate controller includes analog switches that are controlled by a shift register.

35. (New) The active matrix liquid crystal display apparatus as claimed in claim 27, wherein the gate signal line includes a distributed series resistance and a distributed capacitance.

36. (New) The active matrix liquid crystal display apparatus as claimed in claim 27, wherein the first voltage is applied before the data signal is applied.

37. (New) The active matrix liquid crystal display apparatus of claim 27, wherein the reference potential is ground.

38. (New) A liquid crystal display (LCD) device, comprising:

a plurality of pixels arranged in rows and columns, wherein each pixel includes a pixel electrode and a switching device having a control electrode, a first electrode, and a second electrode that is connected to the pixel electrode;

a plurality of data signal lines, each connected to first electrodes of a column;

a plurality of scanning signal lines, each connected to control electrodes of a row;

a data driver for selectively applying data signals to the data lines; and

a gate driver connected to the plurality of scanning signal lines, said driver receiving first and second voltages and scanning clock signals;

wherein the gate driver outputs the first voltage on a selected gate line during the application of a data signal in response to a scanning clock signal, wherein the gate driver outputs the second voltage on the selected gate line during the application of the data signal in response to a subsequent scanning clock signal, wherein the second voltage is applied after the first voltage;

wherein each switching device having a gate electrode connected to the selected gate line applies the data signal to the pixel electrode in response to the first voltage;

wherein each switching device having a gate electrode connected to the selected gate line turns off in response to the second voltage; and

wherein the second voltage is substantially equal to a potential of the data signal.

39. (New) The LCD device of claim 38, wherein the gate driver sequentially changes the selected gate line.

40. (New) The LCD device of claim 38, wherein the gate driver includes a switch that selectively provides the first voltage and the second voltage to the selected gate line.

41. (New) The active matrix liquid crystal display apparatus as claimed in claim 38, wherein the gate signal line potential drops from the first voltage to the second voltage over a period of time.

42. (New) The active matrix liquid crystal display apparatus as claimed in claim 41, wherein the gate signal line potential drops exponentially over the period of time.

43. (New) The active matrix liquid crystal display apparatus as claimed in claim 41, wherein the gate signal line potential drops linearly over the period of time.

44. (New) The active matrix liquid crystal display apparatus as claimed in claim 41, wherein the gate signal line potential drops stepwise over the period of time.

45. (New) The active matrix liquid crystal display apparatus as claimed in claim 38, wherein the first voltage is greater than the second voltage.

46. (New) The active matrix liquid crystal display apparatus as claimed in claim 38, wherein the gate controller includes a timing controller.

47. (New) The active matrix liquid crystal display apparatus as claimed in claim 38, wherein the gate controller includes analog switches that are controlled by a shift register.

48. (New) The active matrix liquid crystal display apparatus as claimed in claim 38, wherein the gate signal line includes a distributed series resistance and a distributed capacitance.

49. (New) The active matrix liquid crystal display apparatus as claimed in claim 38, wherein the first voltage is applied before the data signal is applied.

50. (New) The active matrix liquid crystal display apparatus of claim 38, wherein the reference potential is ground.

51. (New) A method of driving an active matrix liquid crystal display apparatus, comprising:  
applying a data signal to a data line;

applying a first voltage to a gate line such that the first voltage is applied when the data signal is applied;

applying a second voltage to the gate line after the first voltage is applied, but during the time that the data signal is applied;

applying a reference voltage to the gate line after the second voltage is applied, but during the time that the data signal is applied;

wherein the first voltage, which is greater than the potential of the data signal, turns on a switching transistor;

wherein the second voltage is substantially equal to the potential of the data signal; and

wherein the reference voltage, which is less than the potential of the data signal, turns off the switching transistor.

52. (New) The method of driving according to claim 51, wherein the applied first voltage is greater than the applied second voltage.

53. (New) The method of driving according to claim 51, wherein the gate line has a potential that drops exponentially from the application of the first voltage to the application of the second voltage.

54. (New) The method of driving according to claim 51, wherein the gate line has a potential that drops linearly from the application of the first voltage to the application of the second voltage.

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55. (New) The method of driving according to claim 51, wherein the gate line has a potential that drops stepwise from the application of the first voltage to the application of the second voltage.

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